

Closure Chronicles

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Closure Chronicles is published quarterly by Environmental Management's Office of Site Closure. If you would like to receive a copy, please contact Mary Pearl, EM-30, at (301) 903-7424 or by e-mail at Mary.Pearl@em.doe.gov

For more information regarding site closure activities visit our web site at www.em.doe.gov



Closure Chronicles Interviews Office of Site Closure Executive Appointments

Effective November 2000, Bill Murphie and Marc Jones assumed their new positions as Associate Deputy Assistant Secretary for Site Closure and Director, Rocky Flats Office, respectively. The following interviews with them identify their top priorities in these positions, as well as the personal operating philosophy each brings to the job.

William E. Murphie, Associate Deputy Assistant Secretary for Site Closure

Mr. Murphie has been with the Department of Energy (DOE) for more than 20 years and brings to his new position extensive experience gained from his former positions as Director of the Rocky Flats Office, Ohio Office and Environmental Restoration's Eastern Area Programs.

Closure Chronicles: Given your past experience, what do you see as your primary area of focus for the Office of Site Closure (OSC)?

Associate Deputy Assistant Secretary

William Murphie: I really have two main goals: I will support the line programs to get their job done and help promote better program integration at Headquarters.

My experience serving as an Office Director within the Office of Environmental Restoration, and within OSC, has given me the opportunity to work with most of the sites that now make up OSC. Therefore, I am familiar with the problems at these sites and have enough history with them to know what site-specific aspects are likely to present challenges in the future. I believe this familiarity will help me support the line programs as they focus on closing these sites.

More importantly, I see myself as a problem solver. I think I have demonstrated my ability to balance technical and political solutions that are necessary to overcome delays in project

(Continued on page 2, column 1)

Marcus E. Jones, Director Rocky Flats Office

Mr. Jones brings to this new position extensive experience gained in managing environmental cleanup projects in both DOE and the private sector.

Closure Chronicles: Mr. Jones, as the Director for the Rocky Flats Office, what are your principal objectives and how will you accomplish them?

Director Marcus Jones: First of all, I am committed to the safe closure of Rocky Flats by 2006, and I will work with Rocky Flats and other EM, Headquarters, and Field organizations to help make this happen. I cannot stress strongly enough the need to make sure we go about our closure activities in a responsible, safe manner for the sake of our workers, the public, and the environment. To demonstrate OSC's commitment to safety, Deputy Assistant Secretary Jim Fiore and I traveled to Rocky Flats in early January to specifically emphasize how serious we are about ensuring that closure activities are conducted in a safe manner.

Second, my office has established a vision for our facilitation of the successful completion of the Rocky Flats contract. Under the terms and conditions of the contract, DOE is committed to providing Government Furnished Services and Items. Fortunately, my staff has made a good deal of headway by working to develop an Integrated Closure Project Baseline, a detailed description of the scope, schedule and cost for the activities

(Continued on page 2, column 3)

Interview with William Murphie (continued from page 1, column 2)

completion.

For my second goal, I believe I can help provide this integration both within OSC and within the Office of Environmental Management (EM). For OSC integration, it is a natural expectation that as Associate Deputy Assistant Secretary (ADAS), I will be aware of ongoing activities, issues, and problems at each of the OSC sites. I will then be able to support the line programs by sharing this information among the Office Directors, enabling them to learn what has worked at other sites and providing them the opportunity to apply these successful approaches in their own areas of responsibility.

For integration within EM, we now have all of the EM ADAS positions filled. Several of us are relatively new to these positions, but each of us brings a wealth of experience in a variety of different DOE and other government organizations to our positions. I will work with the other ADASs to facilitate communication and strive toward greater program efficiencies. **CC:** *How do you and Deputy Assistant Secretary Jim Fiore plan to "split" responsibilities?*

Murphie: At present we do not envision a "split" of responsibilities. Jim and I both see our roles as ensuring that the Field has the tools to accomplish its mission: i.e. to close sites. Jim sees me as augmentation to OSC and as his backup. We will work together. I will work to improve the overall effectiveness of the Office, and I will do everything I can to ensure that things get done. I will be trouble shooting and working issues directly with the Field and Headquarters management and staff.

CC: *Mr. Murphie, you have a long-standing reputation as being able to accomplish more with the federal dollar than anyone else. How will this talent influence your performance in the new position?*

Murphie: Although I receive a fair bit of teasing about my "monetary controls," it is a trait which I believe helps us achieve our mission. We owe it to Congress and the American taxpayers to ensure that our money is spent wisely. I consider every dollar spent as if it were my own. As we work with the new Administration, and as

2006 gets closer all the time, I plan to continue to make sure that we are using every budget dollar wisely and judiciously. For the sake of achieving real site closure, I think it is extremely fortuitous that we have the new contracting initiatives put in place in January 2000 at Rocky Flats and just recently in November 2000 at Fernald. Our challenge is to accept the new DOE role implied by these cost-plus-incentive controls.

I am also looking forward to working closely with OSC's Closure Policy Team as we develop a framework of policies and procedures to promote site closure and then implement it across our sites. During its first year, the Team has made progress in the areas of Post-Contract Benefit Liabilities, Records Retention, Closure Corporate Core Team and Federal Employee Incentives for Site Closure. However, we still have not solved these problems and each has significant impacts on our program. I look forward to working closely with the Team and our Field sites to continue this progress and to actually begin closing our major sites.

CC: *What other duties will you handle as ADAS?*

Murphie: I have talked with Jim, and we agreed that I should continue my international duties, such as with the Organization for Economic Cooperation and Development Cooperative Program on Decommissioning. This program was initiated by DOE in 1985 and has been one of the most successful DOE international collaborations in terms of achieving real results. The exchange of decommissioning information has benefitted many DOE projects. I also plan to continue as Co-Chair of the Low-Level Waste Federal Review Group. Jim and I believe that my new responsibilities in the ADAS position are more crosscutting, which will add to my effectiveness with these two responsibilities.

CC: *Is there anything we missed that you care to add?*

Murphie: I think Jim Fiore has given me a tremendous opportunity in the ADAS position. The ADAS has been vacant for a long time and I believe that vacancy has impacted the program. My goal is to fill the gap left by the likes of Bill Wisenbaker and Jack Baublitz. I look forward to the challenge. ■

Interview with Marcus Jones (continued from page 1, column 3)

necessary to ensure all of the inter-site and multi-program commitments are met. But a lot of work remains, including establishing a strategy for resolving competing priorities with the leadership of other DOE programs.

Third, one of the objectives I identified in the first conference call I participated in between Rocky Flats and my staff is: I believe we will only be successful if we (Headquarters and the Field) work as a team. I appreciate the effort that went into creating a good working relationship with the Field prior to my taking this job, and I want to continue to improve on what is already a good team. **CC:** *You've been in this position for only a few months. Can you say there has been significant headway made in the Rocky Flats closure efforts during this time?*

Jones: I recently worked directly with the Office of Fissile Materials Disposition (MD), the Office of Environment, Safety and Health, and the Office of General Counsel to develop a disposition path for the plutonium fluoride residues. This resulted in amending the 1998 Record of Decision for the Final Environmental Impact Statement for the Management of Certain Plutonium Residues and Scrub Alloy Stored at the Rocky Flats Environmental Technology Site to enable shipment as waste to the Waste Isolation Pilot Plant (WIPP). The original plan was for these residues to be shipped to the Savannah River Site (SRS) where the plutonium would be dispositioned through the MD program. Our decision to dispose of these residues at WIPP, while offering a significant cost and schedule savings, created a challenge with the plutonium disposition treaty with Russia which had included the fluoride residues as part of its inventory. To resolve this, EM and MD worked together to find material at the SRS to replace the Rocky Flats material for the treaty.

CC: *Are there new management initiatives at work at Rocky Flats which can be shared with other sites undergoing cleanup/closure?*

Jones: Indeed there are. As I mentioned earlier, Headquarters and Rocky Flats have developed an Integrated Closure Project Baseline which includes a detailed cost estimate, scope, and schedule for

delivering all of the DOE activities that must be completed in order for the site to close on time, including special nuclear material package certification and other elements that will enable materials and wastes to move offsite. Most importantly, this includes making sure the receiving sites are prepared for Rocky Flats shipments. The Integrated Closure Project Baseline is a "systems engineering" approach to site closure, and it would be useful for other sites to understand its approach and the detail it includes.

CC: *Mr. Jones, you come to this position with broad experience outside DOE. In fact, you were specifically selected because your experience matched the position needs so well. Could you share your professional experiences with the readers of Closure Chronicles?*

Jones: Prior to working at DOE, I worked as a project manager on environmental cleanup sites for both the Environmental Protection Agency and Fortune 500 corporations – nothing as complicated as taking down a plutonium building, but it provided me with an appreciation for what is involved in completing large cleanup projects. For instance, I know a balance must be reached in order for a project to be on schedule and within cost while ensuring that the workers are safe. I also understand the need for corporations to focus on the bottom line and the different perspectives of Government and private sector organizations. I entered the Department in 1990 and first worked on the Tiger Team Assessment Program which provided me with a broad base of knowledge about the Department's different sites and missions. I later worked as the Deputy Director and then Acting Director in Environmental Restoration's Office of Program Integration. I also spent two years with MD where I gained direct experience in the Department's plutonium disposition program.

Deputy Assistant Secretary Jim Fiore and I both believe that the efficiencies I learned in private industry and the experiences I gained in other Headquarters offices will help me help Rocky Flats complete its closure on the 2006 schedule. There are different ways to do a job, and my experience helps me think outside the DOE box. I am a strong believer that extraordinary work can be accomplished when we challenge workers to find a better way to get the job done. ■

DOE Assigned New Mission to Clean Up Moab Uranium Mill Tailings Site

The President signed legislation (Public Law 106-398) in October 2000 authorizing the Department of Energy (DOE) to remediate the Moab mill tailings site near Moab, Utah. At 10.5 million tons and covering about 150 acres, the Moab tailings pile is the 5th largest of its kind in the United States. Tailings are a sand-like material that contain low levels of radioactivity from uranium and radium and other hazardous materials left by the processes used to separate uranium from ore.

More than half the uranium produced at the site, beginning in 1956, was to support U.S. strategic weapons requirements during the Cold War. Atlas Corporation of Colorado operated the site from 1962 through 1984. In 1997, the Nuclear Regulatory Commission (NRC) amended Atlas' nuclear material license to allow the company to stabilize the tailings pile onsite. The U.S. Fish and Wildlife Service, National Park Service, State of Utah, downstream users of the Colorado River, and other stakeholders opposed the NRC decision to allow on-site stabilization because of potential or perceived environmental concerns and the site's proximity to the Colorado River, City of Moab, and Arches and Canyonlands National Parks.

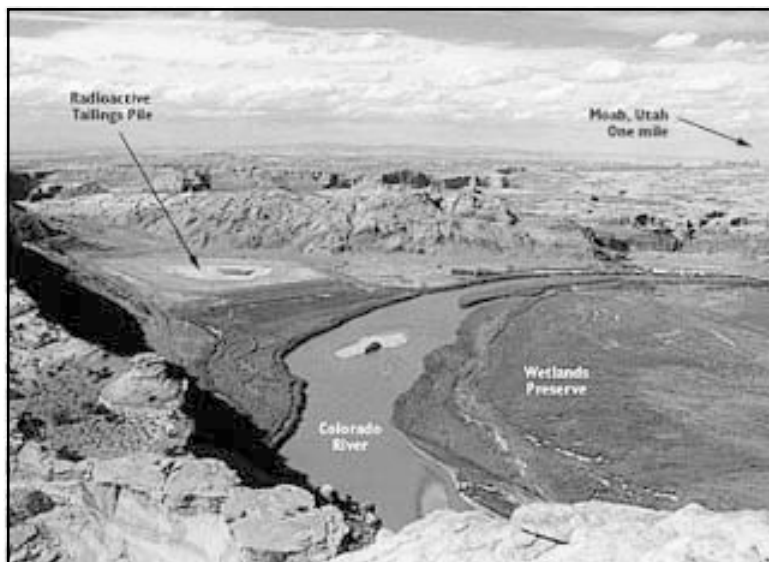
Atlas declared bankruptcy in 1998, and the NRC appointed a trustee (PricewaterhouseCoopers) in December 1999 to manage the tailings cleanup work

using bond money and other remaining assets. In January 2000, Secretary Richardson proposed that DOE take responsibility for the Moab site, including relocating the tailings to a secure, permanent location away from the Colorado River and the doorstep of the two national parks.

The authorizing legislation requires DOE to complete several planning activities within one year for the cleanup of the mill site, as well as taking title to the tailings and 400-acre mill property. The legislation clearly directs DOE to relocate the tailings, but it also requires DOE to obtain the technical assistance of the National Academy of Sciences in objectively evaluating the costs, benefits, and risks associated with various remediation alternatives, including removal or on-site treatment of the hazardous materials.

The Grand Junction Office will manage the Moab cleanup and will apply many of the lessons learned from DOE's successful cleanup of the 22 Title I Uranium Mill Tailings Remedial Action Project sites and the Monticello, Utah, Superfund site. The preliminary estimate to relocate the tailings to an off-site disposal cell is \$300 million over a nine-year period. ■

For more information, contact David Mathes, EM-34, at (301) 903-7222 or e-mail at David.Mathes@em.doe.gov



Aerial view of Moab tailings pile

Amended ROD Issued for Plutonium Residues Stored at Rocky Flats

On January 11, 2001, the Department of Energy (DOE) issued an amended Record of Decision (ROD) on Management of Certain Plutonium Residues and Scrub Alloy Stored at the Rocky Flats Environmental Technology Site (Residues Environmental Impact Statement). DOE has decided to dispose of approximately 315 kilograms of plutonium fluoride residues that are currently stored at the Rocky Flats Site at the Waste Isolation Pilot Plant (WIPP) near Carlsbad, New Mexico. The amended ROD was published in the Federal Register and became effective on January 18, 2001.

DOE issued a first ROD on November 25, 1998, that announced its decision to repackage the plutonium fluoride residues at the Rocky Flats Environmental Technology Site for transportation to the Savannah River Site (SRS) and separation of the plutonium using the Purex Process. The

recovered plutonium would be dispositioned as mixed oxide nuclear fuel or disposed of as vitrified high-level waste in a geologic repository.

With the opening of the WIPP on March 26, 1999, and other circumstances, including delays in securing shipping container certification required prior to transporting the plutonium fluoride residues to SRS, there are no longer cost, waste management, or schedule advantages in shipping the plutonium fluoride residues to SRS for separation. DOE has now decided to blend down the plutonium fluoride residues with a matrix of inert material to less than ten percent, apply a variance to the Safeguards Termination Limits, and dispose of these residues at WIPP. This will help avoid delays in meeting the closure schedule for the Rocky Flats Site.

The impacts associated with the implementation of this new decision were analyzed in a Supplement Analysis. The

results of this Supplement Analysis indicate that the activities and potential environmental impacts associated with blending down the plutonium fluoride residues to less than ten percent of plutonium by weight, applying a safeguard termination limit variance, and disposing of the materials at WIPP are encompassed within those activities analyzed under Alternative 2 (Blend Down) of the Residues EIS. Accordingly, DOE has determined that carrying out the proposed action would not constitute a substantial change in actions previously analyzed and would not constitute significant new circumstances or information relevant to environmental concerns and bearing on the previously analyzed action or its impacts. ■

For more information, contact Eric Huang, EM-33, at (301) 903-2870 or e-mail at Eric.Huang@em.doe.gov

DOE Awards Fernald Closure Contract

The Department of Energy (DOE) recently announced that Fluor Fernald, Inc. has been awarded the contract for final cleanup of the Fernald Environmental Management Project, a DOE-owned former uranium production facility located approximately 18 miles northwest of Cincinnati, Ohio. This new closure contract is a cost-plus-incentive-fee arrangement which provides significant financial incentives to Fluor Fernald to complete work at the site ahead of schedule and below the baseline cost. The contractor assumed responsibility for performance under the new contract on December 1, 2000, and the contract is effective through completion of the site cleanup.

Although the contract target date for site completion is December 31, 2010, Fluor Fernald will earn maximum incentive fee if it completes the site by December 31, 2006. The contract target cost is \$2.4 billion with a target fee of \$120 million. The contract provides for greater accountability by Fluor Fernald than in the previous contract, so that cost increases and schedule delays reduce the amount of fee earned. The Department

has agreed with exceptions for occurrences beyond the contractor's control, and Fluor Fernald has accepted the risk of any increases in cost based on an 80/20 share arrangement.

Major provisions of the contract include:

- A specific and well-defined scope of work which includes completion, restoration and closure of the site in accordance with existing agreements and schedules.
- A fee structure that provides strong incentives for completing the job ahead of schedule and at or below target cost. The fee, reward and risk structure is heavily weighted toward a safe closure.
- Significant penalties for failure to achieve environmental, safety and health requirements.
- Contractor responsibility for 20 percent of cost overruns and shares in 20 percent of cost savings.
- A project management system that tracks contractor performance based on tangible, quantifiable progress

toward closure.

- Fee is paid provisionally on a quarterly basis until total project completion is achieved. DOE retains the right to withhold or recover fee based on overall project completion.

In awarding the contract, DOE Assistant Secretary Carolyn Huntoon said, "We are pleased to award the contract to Fluor Fernald. Fluor Fernald has an excellent track record at the site, with visible progress being made in every major project. This innovative closure contract provides the Department with its best opportunity to achieve the 2006 closure date."

Steve McCracken, the newly appointed DOE-Fernald Site Director said, "This contract will allow Fernald to continue an accelerated pace of remediation, and provide our neighboring communities with a safe, efficient and thorough cleanup." ■

For more information, contact Gary Stegner, DOE Fernald, at (513) 648-3153 or e-mail at Gary.Stegner@fernald.doe.gov

Grand Junction Office Prepares to Transfer Site Ownership

On December 4, 2000, the Secretary of Energy participated in a ceremony with the Department of Energy (DOE) Grand Junction Office (GJO) and Colorado leaders to celebrate the successful completion of negotiations between the GJO and the Riverview Technology Corporation (RTC), a non-profit local economic development organization. The Secretary signed a Memorandum of Agreement for the planned sale of the site to the RTC. The GJO manager and the RTC signed an Offer to Purchase which is the sales contract. The buildings required for the current GJO mission will be leased back to the Department. The actual transfer will occur following approval of a Request for Deferred Remediation (Covenant Deferral) by the Governor of Colorado. The transition process is nearly complete. The transfer is expected to be completed in March 2001, after the Governor approves the Covenant Deferral. The Covenant Deferral is required because some contamination will be left at the site. DOE will be responsible for any remaining contamination.

The ceremony marks more than two years of working with the community and Army Reserves to transfer 48 acres to the RTC and 8 acres to the Army Reserves. Because of the smaller mission at GJO, it is

unrestricted reuse under Supplemental Limits. Two buildings and eight acres have been occupied by the Army Reserves since 1999 and will be transferred later in CY 2001. Monitoring of ground water on the site will continue indefinitely as part of the Long-Term Stewardship Program. Administrative control of the ground water will remain in place until passive remediation of the ground water is verified.

The Grand Junction Office is located immediately south of the City of Grand Junction, Colorado, on a site adjacent to the Gunnison River. The GJO is an Environmental Management landlord site -- much of its mission over the past 20 years has been related to uranium

mill tailings cleanup. Current Grand Junction project assignments include: the Monticello mill site cleanup, the Long-Term Surveillance and Maintenance Program, the Uranium Leasing Program, and the Uranium Mill Tailings Remedial Action Groundwater Project. The GJO also performs the Pinellas Ground Water and Maxey Flats Field Management projects. On January 19, 2001, the Assistant Secretary for Environmental Management signed a memorandum directing that oversight of the GJO be transferred from the Albuquerque Operations Office to the Idaho Operations Office. ■

no longer necessary for the Department to own and operate the facility. By leasing back only the needed portions of the site, DOE expects to save \$1.3 million a year in landlord costs. The transfer of the Grand Junction Office will be a geographical site completion for FY 2001.

All buildings on the GJO site have been either remediated, demolished or approved by DOE for free release for



Offer to Purchase Ceremony, December 4, 2000

Huntoon Visits California

In mid December 2000, Assistant Secretary for Environmental Management, Carolyn Huntoon, presented opening remarks at an interagency workshop on Land Transfer and Long Term Management of Contaminated Federal Facilities held in San Francisco, California. While in California, she visited Lawrence Livermore National Laboratory where she was briefed about the ongoing restoration and waste management programs at the Livermore Site. After the briefings she was given a site tour of several operating ground-water treatment

facilities, waste treatment and disposal facilities, and the newly constructed Decontamination Waste Treatment Facility. ■



Dr. Huntoon with Oakland Operations Office and laboratory personnel

For more information, contact David Mathes, EM-34, at (301) 903-7222 or e-mail at David.Mathes@em.doe.gov

Transfer of Uranium Program

In FY 2001, the Uranium Program activities transferred to the Office of Environmental Management (EM) from the Office of Nuclear Energy, Science, and Technology (NE). This program supports government activities related to the Federal enrichment program that were not transferred to the United States Enrichment Corporation. The major activities under this program include: management of highly enriched uranium; management of the facilities at the Paducah and Portsmouth sites; pre-existing liabilities; management of the Department's inventory of depleted



DUF₆ cylinders in storage at Portsmouth, Paducah and ETPP

uranium hexafluoride (DUF₆) and other surplus uranium inventories; and oversight of the construction of two depleted uranium hexafluoride conversion facilities at Paducah and Portsmouth. The Congress has appropriated \$56.8 million in FY 2001 to continue the uranium program activities and has transferred the program to a new appropriation account, Uranium Facilities Maintenance and Remediation, under EM. In addition, the FY 2001 appropriation bill has allowed the transfer of 25 employees in the Field and up to 5 employees at Headquarters who managed the uranium programs from NE to EM.

After a series of meetings between NE and EM staff, Carolyn L. Huntoon, Assistant Secretary for Environmental Management, and William D. Magwood, IV, Director, Office of Nuclear Energy, Science, and Technology, reached agreement on the functions and personnel that would transfer to EM. All the activities related to this program will be managed by the Oak Ridge Office within the Office of Site Closure.

The Uranium Program's major goal

and objectives are as follows:

- Manage highly enriched uranium oxides and maintain non-leased facilities in a safe and environmentally-sound manner.
- Manage 700,000 metric tons of depleted UF₆ stored in 57,600 carbon steel cylinders subject to corrosion and breaching, requiring perpetual maintenance. Depleted UF₆ is not the most stable form for storage or disposal.
- Conduct research and development to find beneficial uses for depleted



A typical cylinder storage yard

and other uranium materials.

On October 31, 2000, the Department issued a request for proposals to design, construct, and operate conversion facilities at Paducah, Kentucky, and Portsmouth, Ohio. These facilities will convert the Department's inventory of DUF₆ to triuranium octaoxide (U₃O₈), uranium dioxide (UO₂), uranium tetrafluoride (UF₄), uranium metal, or some other stable chemical form acceptable for transportation, beneficial use/reuse, and/or disposal. Any of the proposed conversion forms must have an assured, environmentally acceptable path for final disposition. In addition to assuming responsibility for the DUF₆ cylinder surveillance and maintenance, the selected contractor will also be responsible for transportation of the East Tennessee Technology Park (ETTP) cylinders to the Portsmouth conversion facility for conversion. ■

For more information, contact Duli Agarwal at (301) 903-3919 or e-mail at Duli.Agarwal@em.doe.gov

Partnering to Save Money

The Office of Site Closure saved more than \$200K during FY 2000, thanks to a contract negotiated by the Ohio Field Office with Envirocare of Utah, where wastes from West Valley, Paducah, Ashtabula, and Fernald are disposed. Here's how it worked:

West Valley, Paducah and Ashtabula all had significant volumes of low-level waste debris requiring disposal. Fernald had large volumes of soil requiring disposal. In 1998, the Ohio Field Office awarded a low-level waste disposal contract to Envirocare that provided for a cost reduction for debris disposal. Specifically, the contract provided for disposal of the debris for the same cost as soil disposal (which is significantly cheaper to dispose of due to operational requirements) if the debris arrived at Envirocare within seven days of a soil shipment from

Fernald.

By coordinating shipping dates during FY 2000, Ashtabula saved over \$40K, West Valley saved over \$50K, and Paducah saved an estimated \$110K. In addition, Paducah expects to save even larger amounts as the site works off the debris in the scrap yards during FY 2001.

As a result of the contract modification, DOE was able to apply these savings to additional cleanup at these sites, thereby helping to ensure we remain on schedule for specific projects and site closures.

Thanks, Envirocare, for working with us to achieve these cost savings and enabling us to provide the best value we can to the American taxpayers! For more information contact Edward (Ned) Hallein, EM-31 at (301) 903-5455 or at Ned.Hallein@em.doe.gov ■

Tanks at LEHR Removed

The Laboratory for Energy Related Health Research (LEHR) was established in 1958 at the University of California, Davis (UC Davis) as a research laboratory. The 15-acre LEHR site is located about one and one-half miles south of the UC Davis campus. The Department of Energy (DOE) funded research at LEHR focused on health effects from chronic exposures to radionuclides, primarily strontium-90 (Sr-90) and radium-226 (Ra-226) using beagles to simulate radiation effects on humans. All structures at the LEHR site are currently owned by DOE. On-site facilities consist of 15 buildings, including two animal hospitals, waste storage facilities, laboratory and support buildings, outdoor dog pens,

underground septic and domestic concrete tanks, and numerous radioactive sources and standards.

The Office of Environmental Management's (EM) mission is to safely and cost-effectively clean up the DOE facilities and release sites to a condition that would permit transfer of the LEHR facility to UC Davis for future use.

In FY 1999, the Ra-226 Treatment System, except the Ra-226 tank, and structures of five additional dry wells were removed. The Ra-226 Treatment System consisted of two septic tanks, an effluent distribution box feeding three dry wells and a leach trench via distribution pipelines.

In FY 2000, work was initiated to remove the Ra-226 tank, Ra-226 and Sr-90

influents piping and the Sr-90 Treatment System. The Sr-90 Treatment System consisted of a series of nine "Imhoff" tanks and a leach field. In 1991 and 1992, liquids and sludge remaining in the tanks were removed, solidified, and disposed. Water had accumulated in several of the tanks and about 250 gallons of sludge remained in one of the tanks.

The Sr-90 Treatment System Removal Action (RA) resulted in the removal, sampling and packaging of the Sr-90 tank leach fields, Sr-90 tank A contents, the Sr-90 tank roof (which was covered by a layer of asbestos-containing roof sealant), the Ra-226 tank and associated piping and surrounding soil. Demolition of the Sr-90 and Ra-226 tanks was completed by late October 2000. The waste generated during this RA included 1,500 cubic yards (yd³) of soil, concrete and debris; 90



Area with rain cover prior to removal action



Demolition and excavation of the Sr-90 tank in October 2000



Rolling and compacting soil following completion of the removal action

ANL-East Receives RCRA Corrective Action Facility Progress Award

On January 18, 2001, the Argonne National Laboratory - East (ANL-E) received the U.S. Environmental Protection Agency (USEPA), Region V, Fiscal Year 2000 Resource Conservation and Recovery Act (RCRA) Corrective Action Facility Progress Award for investigative and remedial activities at the site. The award was presented to ANL-E in downtown Chicago during USEPA's RCRA Corrective Action Program Workshop.

The Illinois EPA issued a RCRA Permit to ANL-E in September 1997. The ANL-E has worked closely with the Illinois EPA so that a substantial amount of investigation and remediation activities has been completed to date at this facility. Major completed activities include capping old landfills, installing ground-water monitoring and remediation systems, removal of contaminated soil, and in-situ treatment of contaminated soil. The ANL-E has also utilized innovative treatment technologies for remediating contaminated soil/ground water, including enhanced steam stripping, soil mixing with iron addition, and phytoremediation. Only nine solid waste management units (SWMUs), out of the original 52 SWMUs identified in the RCRA permit for ANL-E, still need to be addressed. Conceptual plans are in place to address these units in the near future. The ANL-E is scheduled for an Office of Environmental Management geographic site completion in FY 2003. ■

drums of water; four B-25 bins containing sludge and wood; and three B-25 bins containing asbestos-containing material. The soil, concrete, and debris was placed in 160 soft-sided lift liners, also known as soft-sided containers. Three B-25 boxes equal one soft-sided container. Each B-25 box costs about \$700, while the cost of the soft-sided container is approximately \$400 which results in a cost savings of approximately \$242,000 for this removal action.

During November 2000, the site was backfilled with clean fill and rolled (compacted). The area was blacktopped in the first week of December. The low-level waste from this project is to be shipped to Envirocare in FY 2002. ■

For more information contact Gordon Langlie, EM-34, at (301) 903-7119 or email at Gordon.Langlie@em.doe.gov

“Site Closure” Training Offered

A new two-day course entitled “Site Closure: Integrating Regulatory, Technical and Administrative Activities” is being offered throughout the Department of Energy (DOE) complex. The course is being conducted under the auspices of the National Environmental Training Office (NETO). Information about the course, numbered “0429” in the NETO system, can be obtained through the Office of Environmental Management website at www.em.doe.gov/neto.

The Office of Environmental Policy and Assistance (EH-41) initiated the class for Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) concerns. It was then broadened to include consideration of business activities associated with the closure process, and the Office of Site Closure helped develop the curriculum. Instructional staff are currently being drawn from both DOE organizations as well as the Environmental Protection Agency.

The course will first provide a

regulatory overview of the closure and post-closure care requirements of RCRA and CERCLA. It will also discuss business functions needed for closure and long-term stewardship requirements. The course will then discuss new, effective ways to plan for the integration of closure among units regulated under different programs, including how to incorporate a wide range of institutional control and business closure activities into their planning activities. Examples of these issues include records management, post-contract liability, and transition to the stewardship phase.

Topics covered include:

- CERCLA action completion, construction completion, National Priority List deletion and partial deletion, and five-year reviews.
- RCRA hazardous waste management unit closure, including clean and risk-based closure, unit specific requirements for closure, closure of mixed and radioactive waste units.
- Techniques for conducting integrated planning of closure and post-closure care activities when RCRA, CERCLA, or both programs apply at a site.
- Institutional controls implementation.
- Business closure activities including end state planning, site workforce planning, work scope management, and administrative closeout.
- Case studies to illustrate each of these major points.

The class was presented as a pilot in Cincinnati, Ohio, on January 23-24, 2001. Future classes have been confirmed for Oakland (February 20-21), Richland (March 20-21) and Idaho (April 3-4). ■

For more information, contact Patrick Noone, EM-30, at 301-903-2870 or e-mail at Patrick.Noone@em.doe.gov

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